

## CLAIMS

1. A method of defining an optical broadband service in an optical communication network, the method comprising the steps of:

defining a service type attribute of a channel on the network;  
defining service channel interfaces for the channel;  
defining the service channel bandwidth; and defining a service channel transport system for the channel.

2. The method of claim 1, wherein the step of defining service channel transport system for the channel comprises defining the type of technology used to implement the network link to be used to provide the service.

3. The method of claim 1, further comprising defining a service set comprising a plurality of service definitions.

4. The method of claim 1, wherein defining a service type attribute comprises defining the channel as a local channel, an inter-office channel, and a long haul channel.

5. The method of claim 1, wherein the step of defining the channel interfaces comprises defining the protocol for the channel and the line rate for the channel.

6. The method of claim 5, wherein the step of defining the channel interfaces further comprises specifying asymmetrical interfaces for the channel.

7. The method of claim 1, further comprising defining channel protection for the channel.

8. The method of claim 1, further comprising provisioning the defined optical broadband service on the optical network.

9. A service definition software platform, comprising:

a basic service building block definition module configured to define basic service building blocks, said basic service building block definition module comprising a service attribute module, said service attribute module enabling an optical broadband service channel to be defined based on channel type, channel interfaces, channel bandwidth, and channel transport system.

10. The service definition software platform of claim 9, wherein the service attribute module further enables the optical broadband service channel to be defined based on channel protection and channel reach.

11. The service definition software platform of claim 9, further comprising a service component definition module enabling service components to be defined on the network.

12. The service definition software platform of claim 9, further comprising a service offering service set module configured to provide service sets built from the basic service building blocks defined by the basic service building block definition module.

13. A network operating center, comprising:

a processor containing control logic configured to:

define a service type attribute of an optical broadband service channel on the network;

define service channel interfaces for the optical broadband service channel;

define the service channel bandwidth for the optical broadband service channel;

and

define the service channel transport system for the optical broadband service channel.